

Republic of the Philippines Department of Science and Technology PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (DOST-PCIEERD)

03 November 2021

2021-005

PCIEERD Administrative Order No. _____ Series of 2021

> Subject: Revised Guidelines on the Implementation of the Good Governance through Data Science and Decision Support System (GODDESS) Program

I. Rationale and brief description

The availability of voluminous amount of data provides a myriad of opportunity to address challenges in various sectors of society. Data driven innovations, technologies and solutions is becoming the norm. To address the need for a critical mass of data science and analytics workforce in the country, the Department of Science and Technology (DOST), through the Philippine Council for industry, Energy and Emerging Technology Research and Development (PCIEERD), continuously provides support for capability development in data science. In 2018, DOST funded the project: "Learning at Scale: Data Science," providing training to a total of 839 individuals under the Coursera platform. Confident of the capability to provide a localized training, the DOST launched in 2019 the project "Smarter Philippines through Data Science Research, Training and Adoption (Project SPARTA)" in collaboration with the Development Academy of the Philippines and the Analytics Association of the Philippines (AAP). The SPARTA training includes modules for the different pathways namely: Data Steward, Data Engineer, Data Scientist, Data Analyst and Analytics Manager. As part of their outputs, the learners are required to develop a data-driven project that will address the needs of the local government unit (LGU) or national government agency (NGA) in support of good governance. Thus, the GODDESS was implemented by PCIEERD in 2020 to provide funding for projects to aid the local and national government agencies to have a data-driven decision-making. As of the Call for Proposals for 2021, PCIEERD has provided support to a total of nine (9) projects, specifically: social welfare services system of senior citizens, data analytics system of PhilRICE, employment services portal, pre-emptive evacuation decision support system, garbage collection and monitoring system, traffic monitoring system, national park management system, automated tariff collection system, and the Philippine rice genetics system.

Initially, the GODDESS was intended to support projects for the local and national government agencies conducted by SPARTA learners. However, with the wide range of data available in the different sectors of society, the PCIEERD sees the need to support projects for micro, small and medium enterprises (MSMEs) to enable them to have a data-driven decision making system. In addition, different institutions also send their personnel, researchers and faculty to undergo training or degree programs in the data science fields since these institutions recognize the importance of data science and analytics in support of decision-making.

Thus, aside from the SPARTA learners, the GODDESS is being expanded to include graduate students, researchers, faculty, personnel and practitioners in the data science and analytics field for the development of systems and technologies to aid in decision

4th & 5th Levels, Science Heritage Bldg., Science Community Complex, Gen. Santos Ave., Bicutan, Taguig City 1631 Tel. Nos.: 8837-2935; 8837-7516; 8837-0071; 8553-8637;8837-2071 locs. 2100-2109; 2020-2121 Fax: (632) 837-6154 making of their respective institution/s and/or identified partner/s from a LGU, NGA or MSME.

II. Objective

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The GODDESS aims to provide assistance for the development of appropriate systems and technologies to address the specific needs of the LGU, NGA, academic or research institutions and MSMEs and enable them to adapt data driven governance and evidence-based management.

III. Definition of Terms

- a. LGU means Local Government Unit
- b. NGA means National Government Agency
- c. MSMEs means micro, small and medium enterprises
- d. Academic institutions refers to state/public and private universities and colleges
- e. Cooperating Partner refers to the identified partner, LGU, NGA, MSMEs, who will provide the data and adopt/utilize the system or technology to be developed.
- f. Implementing Institution refers to the grantee's institution who will provide the data and adopt/utilize the system or technology to be developed
- g. SPARTA refers to the DOST-GIA funded project, "Smarter Philippines through Data Science Research, Training and Adoption"
- h. DSA refers to data science and analytics
- IV. Coverage

The GODDESS is open to learners, students and graduates of SPARTA project and other academic or training institutions, graduate students, researchers, faculty, personnel and practitioners in DSA who will conduct projects that will immediately address the needs of their respective institutions or an identified partner from a LGU, NGA or MSME, who is committed to provide data and utilize the systems and technologies developed. The data to be used should be available in the respective institution or cooperating partner. Data gathering is not covered by the grant.

The technologies or systems to be developed should use the data available in the institution or cooperating partner to provide solutions in any of, but not limited to, the following areas:

- Urban mobility (smart parking, intelligent traffic management, integrated multimode transport)
- Energy management (smart meters and management, renewable sources of energy, energy efficiency and green buildings)
- E-governance and Citizen Services (public information, electronic service delivery, citizen management, video crime monitoring)
- Waste management (waste to energy & fuel, waste to compost, treatment of C&D waste)
- Water Management (smart meters & management, leakage identification & preventive maintenance, water quality monitoring)
- Other thematic areas identified that may be identified by the institution or cooperating partner LGUs or NGAs or MSMEs based on their needs and priorities.

The project duration is for a maximum of one (1) year.

V. Project Team Composition

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- The project may be done individually or as a group. For group projects, the project team may have a maximum of five (5) members.
- The project leader should be employed in any academic institution or NGA. An endorsement from the head of institution is required since the project funds will be released to the said academic institution or NGA.
- Preferably, for group projects, at least one member should be employed in the cooperating partner. This will ensure easy access to data and immediate utilization of the technology or system developed.
- VI. Qualification Requirements

To qualify to the program, the project leader and/or project team should be a:

- Filipino citizen
- a) Learner or graduate of the SPARTA project or DSA-related training provided by a reputable training institution; or
 - b) Graduate of any DSA-related degree program; or
 - c) On-going MS or PhD student of any DSA-related degree program or
 - d) Researcher, faculty, personnel or practitioner in the data science sector
- New researcher or has not availed of a PCIEERD or DOST R&D grant
- For graduate students, the project should be a requirement for graduation. An endorsement from adviser is required.
- Have a cooperating partner from the LGU, NGA or MSMEs or endorsed by the head
 of implementing institution to ensure use of the developed system or technology
- VII. Responsibilities of the Implementing Institution or Cooperating Partner

The implementing institution or identified cooperating partner, who is the direct beneficiary of the project, should:

- Endorse the proposed project
- Allow the use and provide ease of access to available digital data to be used in the implementation of the project.
- Ensure the use/adoption/integration of the systems and technologies developed in its own processes, upon completion of the project.
- Provide the basic infrastructure required for the utilization of the system or technology to be developed.
- Allow PCIEERD to feature the output and impact of the data science project to its organization/institution.

VIII. Documentary Requirements

The application should be submitted to the DOST Project Management Information System (DPMIST) portal at <u>http://dpmis.dost.gov.ph</u> together with the following documents during the identified or announced Call for Proposal period:

- a. DOST GIA Form 2B Project Proposal
- b. DOST GIA Form A Proposed Line-item-Budget
- c. DOST GIA Form B Workplan
- d. DOST GIA Form J List of Personnel Involved in the project

- e. Letter of commitment from the Cooperating Partner or Implementing Institution on the use of available data and adoption of the systems or technologies to be developed
- f. Curriculum Vitae of project leaders and project team
- g. Endorsement letter from head of institution or if a graduate student, from thesis/dissertation adviser
- h. For SPARTA learners and graduates, certification from DAP or a proof of participation in Project SPARTA
- i. If not a SPARTA learner, Proof of completion of training or degree programs in data science and analytics or related course.
- j. In case of on-going students of graduate degree program, proof of enrollment and grades
- IX. Entitlements

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A maximum of PhP1,000,000 may be provided for each project, which shall cover any of the following expenses:

Remarks
For the project team
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For hiring of services necessary in the implementation of the project
For mobile or internet expenses
For cloud services
For the systems development only

*Note: Encoders and enumerators not included.

Counterpart funding of at least 15%, either in cash or kind, is required.

X. Criteria

The following are the criteria for evaluation of the proposal:

- Alignment with the PCIEERD priority
- Innovativeness
- No duplication from any DOST-assisted project
- · Immediate utilization of the technology or system to be developed
- Demonstration on the use of data science and analytics to address the needs of the Implementing institution or the Cooperating Partner

XI. Procedural Guidelines

a. The proposal and other documentary requirements should be submitted to PCIEERD, through <u>https://dpmis.dost.gov.ph/</u>, on or before the announced deadline. Applications with incomplete documentary requirements will not be processed.

b. Screening and Evaluation

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The proposal will be evaluated based on the identified criteria and shall undergo the PCIEERD proposal evaluation process.

- c. Once approved, the grant shall be released directly to the project leader's institution. The project leader to provide PCIEERD with the institution's bank details, preferably Land Bank of the Philippines, as follows: bank account number, bank account name, bank branch and address.
- d. The grant shall be governed by existing government accounting and auditing rules and regulations and the DOST-GIA guidelines.
- e. The said grant shall be liquidated upon completion of the project.
- f. Upon completion of the project, the technology or system developed shall be turned-over to the cooperating partner.
- g. Monitoring of project shall be conducted by PCIEERD, as per DOST-GIA guidelines.
- h. The DOST-GIA guidelines, including intellectual property-related matters, shall be enforced for provisions not stated in this guidelines.

This Administrative Order supersedes existing related orders and shall take effect immediately and remain in force until sooner revoked. Done this ____ day of _____ 2021.

DR. ENRICO C. PARINGIT

Executive Director